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NHI IACET Guidelines



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IACET Introduction

The National Highway Institute (NHI) is authorized by the International Association of Continuing Education and Training (IACET) to provide continuing education units (CEUs). IACET is an independent, internationally recognized, non-profit association whose goal is to ensure quality continuing education for professionals. To become a CEU provider, an organization must demonstrate that it designs and develops training in accordance with proven adult education theory and recognized instructional system design (ISD) practices.

As part of NHI's continuous improvement process, we are instituting the IACET standards for awarding CEUs. By becoming an IACET CEU provider, we ensure quality in continuing education and training programs and increase the consumer's confidence in our organization to deliver top quality, superior training materials and instruction that achieve a recognized standard.

IACET Design Guidelines

Needs Identification/Assessment

A needs assessment is the analysis and examination of the existing need for training within an organization. Our assessment performs three distinct functions: (1) establishes present practices; (2) projects desired results; and (3) provides the basis for the cost justification. We recognize that training is not always the best solution to a problem or gap. However gathering information on our current organization's and individual performance provides the starting point to identify new gaps and measure progress.

The FHWA/NHI and their customers each gather information differently. Below is a discussion of at least three ways FHWA/NHI achieves the needs assessment task.

- State/LTAP/MPO's – Each year NHI contacts their customers to ask about the types of needs their organization has identified for the upcoming year. A list of courses currently being offered, revised or developed is provided to help our customers predict their requirements based upon identified needs, whether to fulfill licensing requirements, new or revised Federal policies, change in employment trends, or emerging performance issues. Customers are encouraged to identify needs not met by current courses. FHWA/NHI then responds to our customer's needs.
- FHWA Organizations – Based upon our identified competency framework for the major workforce disciplines, Individual Development Plans (IDP), and our knowledge of the Agency's Mission, needs are collected and maintained via the Agency's learning management system. Management reviews the information and determines whether or not the information is analyzed and a decision is made by management as to whether or not needs can be met through existing or new instructor-led courses, rotational

assignments, on-the-job or web training. The Office of Human Resources (OHR) works with NHI and HQ Program Offices to meet the identified needs.

- **HQ Program Offices** – Once a training need has been identified, the appropriate Program Office works with NHI to develop and deliver new training curriculum or deliver existing courses. There is a systematic process used to develop courses based on identified needs. The steps are outlined below:
 - NHI hosts a focus group with affected stakeholders including FHWA HQ Program Office Staff, FHWA Field Staff, State and other Federal agency representatives, NHI Instructional Systems Designer (ISD), and other partners (Subject Matter Experts (SME)). The focus group is designed to reach consensus on key aspects related to developing, updating or revising an NHI course.
 - Information gleaned from the focus group is incorporated into contracting documents for course development or course update. The NHI Training Program Manager facilitates the focus group and the SMEs provide:
 - Background information about the need for the course
 - Target audience
 - Course outcomes
 - Learning outcomes
 - Resources
 - Minimum course requirements/prerequisites
 - Course title
 - Criteria by which contractors will be selected
 - List of SME who could serve as subcontractors

The nine (9) items listed above are also the expected outcomes for the focus group developing a formal needs statement and justification for course development.

Course and Learning Outcomes

The key to any NHI training product is the development, instruction and evaluation around outcomes. There are two specific types of outcomes in NHI training curriculum: course outcomes and learning outcomes.

Course outcomes ensure that the training develops skills, instills knowledge, or develops the ability within the participant to achieve the outcomes by the end of the course. As a result of the focus group's role, the overall course outcomes are identified.

Learning outcomes are created to support the individual lessons in a training course and when combined build to satisfy the course outcomes. The instructional designer develops the learning outcomes in the Lesson Plan.

Both course and learning outcomes are central to a good learning experience. Course outcomes ensure that NHI training courses solve a performance problem or meet a development need. Learning outcomes dictate the training content and activities required to fulfill the course outcomes. Finally, the course assessment validates that the learners achieve the course and lesson outcomes.

Content and Instructional Methods – Activity/Learner Centered

The course and learning outcomes, content, instructional methods and evaluation methods used are outlined in the Lesson Plan. The Lesson Plan also states the Performance Based Learning Outcomes, Instructional Method, Time Allocation, Evaluation Plan, References, and Other Resources. The plan must ensure that:

- Subject matter and content are directly related to the learning outcomes.
- Instructional methods are consistent with the learning outcomes and accommodate various learning styles and adult learning principles.
- Content is organized appropriately.
- Participant interaction and assessments are utilized throughout the learning event to reinforce learning, monitor participants' progress, and provide feedback to participants on their progress.
- Policies and procedures are established to address intellectual property rights.

Intellectual Property Rights

Any materials developed for/by the NHI contractors or instructors in the course of their work are considered to be the property of the NHI/Federal Government except when a special agreement is made with an NHI customer who pays for material development. In that case, the customer may wish to share intellectual property rights with NHI. These sorts of special agreements are made on a case-by-case basis. Specific language in the contract says: “the provider discloses, in advance of the learning event, any proprietary interest in any product, instrument, device, service or materials discussed in the event.”

IACET Delivery Guidelines

Planning and Instructional Personnel

As NHI is a technical training organization, all instructors must be technically proficient. In addition to professional competencies, they must exhibit an awareness and practice of the principles of learner centered delivery and adult education theory. To ensure a minimum understanding of the concepts and their application, NHI offers an Instructor Development Course (IDC).

Instructors receive feedback from participants at the end of each course through NHI's Course Evaluation Process. The feedback is also collected and analyzed by the Training Program Manager and the organization. We maintain a database to help identify potential trends and issues. Through the database reports, we can note changes in perceived instructor performance and conduct focused conversations.

The Instructor Evaluation covers the following observable instructor behaviors and participant outcomes:

- Demonstrated knowledge of the subject matter,
- Conveyed knowledge of the subject matter and followed an appropriate sequence of presentation,
- Consistently met learning outcomes and learner expectations,
- Provided participants adequate opportunity to ask questions and get satisfactory answers, and
- Participants' demonstrated comprehension of the material through interaction, class discussion, workshop exercise, quizzes, and/or other assessment methods.

Instructors may earn the same number of CEUs or PDHs as students the first time they teach the course. However, no further CEUs would be awarded for that course.

Student Requirements to Achieve CEUs

Instructors will advise participants at the beginning of the session that an assessment of individual learning will take place by the end of the class. This assessment may consist of a post test, a case study or a project/demonstration. It is expected that all participants will take an active role in this assessment. In addition to the assessment, to receive CEUs, a participant must attend class. Our goal is to have 100% attendance. If participants miss a short segment, they will be required to make up the work and demonstrate achievement of the outcome to meet the intent of the IACET requirements. Participants absent for more than 5% of the course and who do not make up the course work, will not receive CEUs. (Participants must address the absence with the instructor in advance and make-up the work prior to the end of the course.)

Assessment of Course Outcomes

During the course development process, the appropriate assessment is determined. The assessment is designed to measure the achievement of course outcomes. Instructors commonly facilitate question-and-answer sessions, quizzes, and pre-post assessments for courses. The course outcomes dictate the form of assessment used to measure the learner's knowledge, skill or ability gained during the course.

The assessment of outcomes can be formal (e.g., post test) or informal (e.g., group activity) as long as the instructor(s) can measure that the course outcomes were met by the participants. If a post test is given, the participants will be considered to have "passed" the assessment if they

score a 70% or higher.

Course descriptions, as well as other marketing materials, reflect the outcomes and the method of assessment to be used for measurement. Also, the instructor, at the beginning of the course, describes the assessment process to learners.

Instructor Feedback Process

One of the last requirements for the learners on the final day of training is to complete a course evaluation form that focuses on outcomes stated and met, course content and flow, facility feedback, and instructor reviews. To obtain an end of course certificate the learner must complete this feedback form.

NHI requires the instructors to make Post Course Evaluations copies for themselves and the hosting agency as a means to provide immediate feedback on their course delivery. The data gathered is the basis for either modifications to the course, or instructor mentoring in needed areas.

The instructor is responsible for mailing the course evaluations along with attendance sheets, student registration forms and post-assessment scores back to the Training Program Manger (TPM) at NHI. The evaluations give NHI an opportunity to review comments that may impact future needs assessment discussions or administrative practices.

All Post Course Evaluations are entered into a database. The summarized evaluations will be analyzed to make sure that course outcomes were appropriate and accomplished, and feedback is given to instructors and TPM so that the quality of the course and integrity of the process can be maintained.

IACET Processes

Validation of Course Material

The National Highway Institute (NHI) has a complete and thorough review process in place that ensures that the IACET CEU criteria are met. Any material requested, reviewed and accepted is developed with an instructional systems designer (ISD) who attests that the course meets IACET Guidelines. For any questions you might have, please contact nhitraining@fhwa.dot.gov

The ISD team is trained in the IACET CEU criteria process and contributes to the course from the first meeting to final review of all course material to ensure it meets all IACET CEU criteria. Upon the completion of a successful review by the ISDs, CEU's will be assigned to the course by the completion of the IACET Acceptance Letter (see page 12 for sample letter).

If a missing CEU criteria is identified, it will be the responsibility of the ISD specialist to work with the training developer to meet the CEU criteria.

NHI Sole Provider of IACET CEUs for FHWA

It is important to understand why only NHI has become certified to give IACET CEUs.

- Licensing boards, certifying bodies and regulatory agencies require providers to obtain approval from that agency before the provider's CEU will be recognized. NHI has made those contacts and most professional boards, etc. recognize our CEU's.
- NHI applied to IACET and after review of our application and a site visit, we became an official provider of IACET CEUs.
- Only one organizational representative can certify developed courses as being IACET compliant.
- Organization must have a system to maintain permanent records for seven (7) years. These records must be maintained separately from attendance records and, in most cases, from personnel records.
- Class participants may request a transcript of earned CEUs and that transcript must be sent to the requestor within 30 days.

Retroactive Award of CEU

- IACET CEU's CANNOT be awarded retroactively.
- NHI's courses and processes have been reviewed by IACET and meet the criteria (learner centered, adult learning principles, attendance, record keeping, evaluations, etc.).
- Each course goes through the Instructional System Design (ISD) review and is developed to the IACET standard.
- Determination has been made prior to the learning event that the course meets the criteria and has been approved by NHI's internal review process.
- Only after the course goes through the NHI ISD review, is it listed in the NHI catalog, offered through NHI, and authorized CEUs.

Definition of a CEU

One **CEU** equals ten contact hours of participation in organized continuing education/training experience under responsible, qualified direction and instruction.

IACET Continuing Education Units (CEUs) are a uniform, internationally recognized unit of measure for continuing education and training. They reflect participation in organized continuing education/training experience under responsible, qualified direction and instruction.

Definition of a Contact Hour

One **contact hour** equals one 60-minute clock hour of interaction between learner and instructor

or learner and course materials which have been prepared to cause learning.

Definition of a Contact

Contact implies a connection between a learner and a learning source. For the purpose of the CEU, that connection is two-way. The instructor or learning source must monitor the learner's progress and provide some form of feedback to the learner. This definition applies for distance learning programs and face-to-face interactions.

Calculating the CEU

Determine the number of contact hours by adding all countable portions of the learning event (60 minute hour). Divide the number of contact hours by 10 to get the number of CEU. The CEUs are expressed in tenths. (i.e. $5/10=.5$ CEU) However, you may use hundredths to express a $\frac{1}{2}$ hour increment. (i.e. $3 \frac{1}{2}$ hours equates to .35).

When the contact minutes of the last hour are a fraction of an hour, you should calculate CEUs as follows, $5/6$ (50 minutes or more), the fractional portion should be counted as a whole hour. Any portion of an hour between 30 and 49 minutes should be counted as 30 minutes. Any part of an hour less than 30 minutes should be dropped.

Examples of types of activities to include when calculating contact hours for CEU:

- classroom time led by instructor and/or discussion leader;
- activities, in which a learner is engaged in a planned learning event in which the learner's progress is monitored and the learner receives feedback. (i.e. independent study, computer-assisted instruction, interactive video, web site learning and planned projects).
- field trips, projects, homework and assignments which are an integral part of a learning event; and/or,
- learner assessment (demonstration/post test) and learning event evaluations.

A CEU will not be granted for learning events that are less than one hour in length. The 60-minute hour is the standard for awarding CEUs.

Awarding CEUs

NHI has a system in place to identify participants who meet the requirements for satisfactory completion of training and are qualified to receive CEUs. Some states and organizations use Professional Development Hours (PDHs) to track training. For a participant to receive CEUs (or PDHs) all of the following documents must be completed and received by NHI:

- Session Roster reflecting attendance by required sign-in twice a day
- Course/Instructor Evaluations
- Student Registration
- Post Assessment (demonstrated skill/pass/fail)

It is the policy of NHI to NOT award partial credit for partial attendance however the participant could receive a certificate of attendance (without CEUs). Successful completion of a training event is based on satisfactory attendance (95% or higher) and passing a course assessment.

To receive a training history of CEUs a participant calls NHI Training or submits their request through the NHI website Learning Portal. All NHI Training records are maintained in a NHI training database. Individual training transcripts will consist of all attended training courses for a minimum of seven years, including post-assessment completion data if applicable.

Training transcripts will be available to the participant no later than 6 weeks from the end of the course. Participants may request a transcript from NHI via the website, e-mail or by telephone.

Student Registration

A form has been developed to collect individual student information and the data is captured in the CEU database.

- Each student fills out registration form containing unique identifiers.
- Data is used when a student requests a transcript to verify their ID.
- Student identified/verified through a combination of data elements: name, (year of birth), last four digits of their social security number, course number, location of training, and start date.
- Record maintained for seven (7) years.
- Mandatory fields: Name, Address, Birth Year, Last 4 Digits SSN, Course Number, Session Location, and Course Start Date.

Privacy Policy

NHI is part of the Federal Highway Administration (FHWA), Department of Transportation and follows federal and agency guidelines to ensure the privacy of our customers. Notification of our agency privacy policy is on the registration form and on our web site. All information requested of participants has been reviewed by the FHWA Privacy Office and approved.

Frequently Asked Questions (FAQ)

1. Is the 100% attendance firm?

The required minimum attendance for award of CEUs is 95% of the course. But, NHI strives for 100% for the following reasons. IACET requires attendance to achieve all of the course outcomes. Achievement of course outcomes are particularly important if the State has professional licensure requirements that the course meets or internal certification requirements. We have a couple of multi-week courses and on occasion

people may have to miss up to ½ of one day in a two-week course – 5%. When the participant addresses the absence with the instructor in advance, the participant can be advised of the material that will be missed and asked to complete and turn in an exercise that indicates they have met the outcome covered during their absence. The goal of the 100% participation is to ensure that if a person receives CEUs, the individual has achieved the course outcomes. By requiring a person who misses a short segment to make up the work – demonstrate achievement of the outcome, we have met the intent.

2. Is it ok to have a pre/post-test as an assessment tool?

Yes. One of the great things about adult learning is that teaching with the test in mind (presuming it is based on course outcomes) is not only acceptable but also desirable. A pre-test is one way of emphasizing the course and learning outcomes and reinforcing course expectations to the. We encourage instructors to emphasize the association between the pre-test items and the course outcomes as they teach the course. We ask instructors to point out the significance of associated information as they are teaching the course to reinforce the outcomes covered by the pre-test. The instructor highlights the important outcomes at the beginning of the class, facilitates learning and then reinforces the stated outcomes at the end of the course.

3. Do the IACET rules apply, if participants do not want CEUs?

Since NHI is certified as an organization, all NHI courses and policies are expected to reflect IACET requirements. NHI will not maintain training records for those participants who do not complete CEU requirements. NHI awards CEUs only when the participant registration is complete so accurate Training Histories are maintained.

4. Can CEUs be awarded to instructors teaching an NHI course?

Yes. CEUs or PDHs can be awarded to instructors who teach an NHI course. However, the CEUs/PDHs will be awarded only the first time they teach the course.

5. How can participants get a copy of their transcript/training history?

NHI is issuing an automated Training History listing courses and CEUs and professional development hours (PDH) earned by name. Customers can request their training history through the NHI learning portal, via e-mail to nhitraining@fhwa.dot.gov. Requestors should be prepared to provide their full name, the last four digits of their social security number and the most recent course attended. The training history will be issued as a PDF and sent either by mail or e-mail to the requestor. The Training History features both our NHI and the IACET logo.

6. Does every outcome in a course need to be evaluated?

Using the systems approach to training, there are identified course outcomes with subordinate or enabling learning outcomes. When developing an evaluation/assessment tool, one writes test questions or develops an end of course project/exercise that tests outcomes that most directly support the overall course outcomes. Every learning outcome in each module is NOT evaluated as a discrete question or exercise.

7. Can courses offered by other FHWA organizations be awarded CEUs?

At this point, NHI is the only organization within FHWA authorized by the International Association of Continuing Education and Training (IACET) to award CEUs. Our courses and processes were reviewed by IACET and we agreed to award CEUs only for those courses that met all criteria (learner centered, adult learning principles, attendance, record keeping, evaluations, notice of requirements to participants, etc.) Every course that NHI offers goes through the instructional systems design review and is developed to the IACET standard.

Unless an organization's course goes through the NHI instructional systems design review, listed in the NHI Catalog (web version also) and is offered through NHI, we can not award CEUs.



U.S. Department
of Transportation
**Federal Highway
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

Dear _____:

Congratulations! The training course, _____ (training course title) _____, has been granted full IACET approval from the National Highway Institute.

(Training Course Title) _____ has successfully met the following NHI/IACET guidelines:

- The course has clearly defined and measurable course and learning outcomes;
- The instructional content of your training course reinforces the standards set by the course and learning outcomes; and
- The course assessment tool sufficiently measures the participants learning and retention of the course and learning outcomes.

Thank you for all the effort and hard work you and your team have done to ensure a sound learner centered course. NHI has added the IACET logo and credentials to the final product.

We look forward to working with you and your staff on training development projects.

Sincerely,

Nancy Stout, IACET Training Program Manager
National Highway Institute

XXXXXXXXXX, Instructional Systems Designer
National Highway Institute